

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended by incorporating the subject matter of Claim 7 therein.

Claims 7 and 10 have been canceled. Claims 8 and 9 have been amended to depend on Claim 1. Claim 12 has been amended by deleting "MDF, HDF, chipboard," since colored board and electroconductive black board are species thereof. Compare to Claims 8 and 9.

No new matter is believed to have been added by the above amendment to the claims. With entry thereof, Claims 1-6, 8, 9, 11 and 12 will be pending in the application.

REMARKS

Due to the length of the specification herein, Applicants will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2006/0048675, when discussing the application description below, rather than to page and line of the specification as filed.

The rejection of Claims 1-12 under 35 U.S.C. § 103(a) as unpatentable over US 3,939,454 (Thornber et al) in view of US 6,503,317 (Ortalano et al), is respectfully traversed.

As described in the specification, the present invention is drawn to solving a problem of inability to obtain colored derived timber products such as HDF, MDF and chipboard having high brilliance, lightfastness and heatfastness [0009]. Applicants describe the disadvantages from using dyes [0005] and from using pigments [0006]-[0007], as well as a prior art preparation disclosed in EP 0 049 777 using both dyes and pigments, although dyes are used in excess, i.e., at least 30% by weight of dye, based on the pigment [0008].

The present invention successfully addresses the above problem. An embodiment thereof, as reflected in above-amended Claim 1, is a method for the decorative coloration of a product selected from the group consisting of MDF, HDF and chipboard, comprising applying a liquid colorant preparation that comprises at least one pigment and, based on the pigment, from 0.5% to 10% by weight of at least one dye to the product.

Thornber et al is drawn to a method for making colored particleboard using a water soluble dyestuff to color individual wood particles (column 1, line 19ff). Thornber et al is an example of the prior art alluded to above. Ortalano et al is drawn to an aqueous-based pigment dispersion containing pigment dispersed in a disperse dye (column 3, lines 47-50) for addition to printing ink, paint, pulp and paper, coatings and textiles for coloration purposes (column 1, lines 12-15). The Examiner holds, in effect, that it would have been

obvious to use the aqueous-based pigment dispersion of Ortalano et al to color the particleboard of Thornber et al.

Absent the present disclosure as a guide, one skilled in the art would not have combined Thornber et al and Ortalano et al. But even if combined, the result would not have been the claimed invention.

First of all, the Examiner has not established any relationship between the particleboard of Thornber et al and the paper of Ortalano et al such that one skilled in the art would look to the paper art for solutions to problems in coloring particleboard. Indeed, the Examiner has already acknowledged the steps--combining particles with a resin binder or adhesive to form a mattress followed by hot-pressing at elevated temperature and pressure--disclosed by Thornber et al for making particleboard.

To make pulp or paper, on the other hand, and as widely known, the wood fibers usually are processed to remove the lignin to give cellulose. (This procedure is not necessary in the manufacture of derived timber products.) The cellulose is then mixed with water, binder, optionally fillers and coloring agents to give a pulp usually containing about 99 wt% of water. The amount of binder is about 1 wt% based on the cellulose. Binders used in the manufacture of paper include alkenyl succinic acid, alkylated ketene dimere or chemically modified natural resins. The binders are mixed into the pulp to render the paper hydrophobic, making it possible to write on it. The binders do not serve as glue. The flowable pulp is processed further by casting on a sieve, dewatering, pressing and drying at temperatures of about 70-100°C.

Apart from the raw material, neither the end products nor the manufacturing processes, e.g., parameters like temperatures, pressures, water content, mechanical treatment, nor the chemicals used are the same in paper fabrication and in the production of derived

timber products. The coloring agents have to meet totally different requirements depending on the process in which they are to be used.

Second of all, one skilled in the art would not derive from Ortalano et al the use of coloring agents comprising pigment and only 0.5-10 wt.% of dye based on the pigment. Ortalano et al neither discloses nor suggests a particular concentration ratio of dye to pigment (other than the pigment is dispersed in the dye), let alone the small concentration ratio according to the present invention. Ortalano et al discloses aqueous based pigment compositions comprising 1 to about 50 wt% dye (column 5, lines 8-12) and 1 to about 50 wt% pigment (column 5, lines 54-58). Example 22 (column 9, lines 10-14) describes the pigment composition with the lowest content of dye in respect to the pigment. The coloring agent used contains about 6/26, or 23 wt% dye based on the pigment.

Indeed, it is very surprising and unexpected that the small amount of dye in the coloring pigment containing agent according to the present invention is sufficient to obtain the MDF, HDF and chipboard with the beneficial properties described in the specification herein [0169]. The physical explanation for the effect is that the dye is absorbed by the particles and covers the brownish-yellowish color inhered by the wood particles. The coverage of the inherent color of the wood particle together with the use of the pigments gives the MDF, HDF and chip boards with the brilliant and lightfast coloration according to the present invention.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejections of Claims 1-12 under 35 U.S.C. § 112, first paragraph, as failing to comply with both the description and enablement requirements, are respectfully traversed. According to applicable US law and regulation, Applicants entering the national stage in the United States are required to file an English translation of the international application if the international application was filed in another application and was not published under PCT

Article 21(2) in English. Thus, the present national stage application is such an application. As confirmed in M.P.E.P. 1893.01(d), the translation **must** be a translation of the international application as filed or with any changes which have been properly accepted under PCT Rule 26 or any rectifications which have been properly accepted under PCT Rule 91 (emphasis added). Thus, if the German word “holzwerkstoffe” literally means “derived timber product”, then it is actually required that the change of “wood based material” to -- derived timber product--, be accepted. Nevertheless, the rejection is now moot in view of the above-discussed amendment, which deletes the term “derived timber product” from the claims. Accordingly, it is respectfully requested that this rejection be withdrawn.

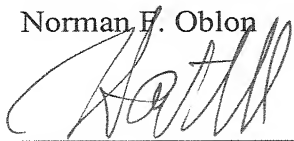
Finally, consistent with 37 CFR 1.56, prior public use has been alleged in an opposition against the corresponding EP-patent to the present application. The allegation relies on prior public use in Europe and EP 0 049 777, discussed *supra*. However, public prior use outside the USA is not patent-defeating according to US law. Nevertheless, copies of the filed evidence, labeled as D1 through D4, are **submitted herewith**.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon



Harris A. Pitlick
Registration No. 38,779

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

NFO/HAP:

D1

0473720150002

47372



NECAUSDRUCK

FERTIGUNGS-AUFTRAG

SEITE: 0001

EPO - DG 1

12.02.2007

(102)

PRODUKT-NR./PRODUKT-BEZEICHNUNG 0150002 GEF 200A		REZEPT-VERSION P004		DRUCK-DATUM 2/08/00		CHARGEN-NR. 47372		LIEFER-TERMIN 11/08/00		AUFTRAGS-NR. 47372	
HOLZLEISTE KUBENRAUM-MITTEL KRAF											
FERTIG-MENGE 600	KARLGUT-VOL. 0	BEHÄLT.-GEWICHT 1.046	VERP.-CODE F.W.	RES.-GEFÄHRE L80	W/P LAB L80	FERTIGSTADIUM/GRADIT 9.6.2000-8.20		GESAMT-MENGE 5007			
REZEPT-GEWICHT 5007		ANMERKUNGEN P		BREMSPROZENT P		AUFWANDS-GRAD P		UNTERSCHRIFT P			
START-KOSTENSTELLE 38001											
MATERIAL-NR.											
MATERIAL-BEZEICHNUNG											
REZEPTVORGANG											
LIEFERGE-GRAD											
RES.-GEFÄ.											
CHARGEN-NR.											
GERÄTE MÜSSEN BAUEN UND LERNEN SEIN NUR KRAFTFÄHRGERÄTE VERMIEDEN BETRIEBSMITTEL: KESSELBOILER VORLAGE											
M225H	✓	SYNCHRONIS T-2H		0.665		✓					00030454
M202C	✓	SYNCHRONIS 2G-2H		0.185		✓					00030460
M241H	✓	SYNCHRONIS 2H-2H		0.175		✓					00030462
A0027	✓	SPEZIALKLEBSTREIFEN 2H-2H		0.460		✓					00030464
A0435	✓	SICKEIT ABWARTEN 65 E 123		0.080		✓					00030466
Z9436	✓	POTTSCHKE		4.000		✓					00030468
M2224	✓	WASSER E 2005 4*24		27.600		✓					00030470
M2225	✓	SICKEIT-GRUND 81-0010 4*26		1.000		✓					00030472
L1742	✓	DAMPF ZUGEN VOR FUGEN KLEBSTREIFEN AUF 80 GRAD C WASSER STÄNDIGKEIT		398.435		✓					00030474
24454	✓	20 MINUTEN RÜCKEN ABWARTEN AUF 30.0 GRAD C DAMPF ZUGEN		25.000		✓					00030476
29756	✓	BALETTIERUNG 0.91		0.500		✓					00030478
E329C	✓	PREVENTAL CHE-NA SCHÜTTEN		40.000		✓					00030480
L1091	✓	MOULTEIN DC. 562		2.000		✓					00030482
	✓	REZEPTVORGANG				✓					00030484
	✓	15 MINUTEN RÜCKEN				✓					00030486
	✓	PREVENTAL CHE-NA SCHÜTTEN				✓					00030488

D2

NORDWAL AG-SPR
NORDWAL AG-SPR
Nordwal AG/SPA - Nazionalestr. 63 via Nazionale - I-28040 ALESSANDRIA (SZ)
voll einget. Handelsges. - o.g. nat. gesetzl. versichert © 2000,000
UmsSt. Nr./Part. LVA. 20126120219

NR. 260 S. 1

nordwal

FAX

fax 0471.810884 Verkauf/vendita - fax 0471.810297 Buchhaltung/contabilità

tel. 0471.810259

E-Mail: nordwal@dnst.it

für/per: ZWEIHORN GMBH

fax:

z.H./att.: g. Frau Albrecht

Datum/da: 20.11.2000

fax nr.: 1619

Seitenanz./nt. pag.: 1

960303
233722

BESTELLUNG

4 x 5 Ltr. OKF 2004
4 x 5 Ltr. OKF 2078
4 x 5 Ltr. WXF 1200
20 x 5 Ltr. PBF 2314
20 x 5 Ltr. PBF 2352
12 x 0,5 Ltr. CK 05 braun
20 x 25 Ltr. CL 9
20 x 25 Ltr. CL 0
10 x 10 Ltr. WL 6020
30 x 2,5 Ltr. Härter 5085
10 x 10 Ltr. IF-Füller
20 x 3 Ltr. IF-Füller
4 x 5 Ltr. S 7000
6,2 x 2,5 Ltr. S 7777
12 x 2,5 Ltr. HL 2000/3
30 x 1 Ltr. HL 2000/0
6 x 0,5 Kg 2K Holzspachtel CHS
2 Schachteile à 14 Stück CWW 06
2 Schachteile à 14 Stück CWW 07
40 Stück LGD WW 3 - Leergebinde 3 Liter - innenlackiert für WL
1 Kg Nussbaumkörnerbeize 41485/1 als kostenloses Muster ✓
1 x CRK R.P.H. R.P.H.

Rückstände:

~~40 x 30 Ltr. SDF/A~~
~~14 x 25 Ltr. WAG/Ral 9016~~
~~40 x 5 Ltr. S 9999Awa/4030~~
~~5 x 1 Ltr. Petinapaste nach RAL 8024~~

Auslieferung: sobald als möglich!

Freundliche Grüße

B. Röll
nordwal ag/B. Röll

DM 14681,39
7% WR = DM 1027,69
5% SR = DM 734,07

EPO - DG 1

12.02.2007

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Zweihorn GmbH
Ein Unternehmen der ICI-Gruppe

RECHNUNGSKOPIE
USt-IdNr./VAT-Reg.No. DE812578011

Geschäftsbereich Business Area Vertreter Sales Representative		Zweihorn ZH-Italien		Vertreter-Nr. Sales rep.		777000		Seite Page		1									
Rechnungsadresse Invoice Address				Rechnungs-Nr. Invoice No.		233722		Rechnungsdatum Invoice				22/11/00							
NORDVAL AG VIA NAZIONALE 63 I 39040 ORA/BZ ITALIEN				Lieferadresse Consignee Address NORDVAL AG VIA NAZIONALE 63 I 39040 ORA/BZ ITALIEN															
Kunden VAT.No. IT 00128120219																			
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Kunden-Nr. Invoice Reference No.		340062		Lieferschein-Nr. Delivery note no.		233722		Auftragsdatum Order date		22/11/00		Lieferdatum Delivery date		22/11/00					
Pos. ITEM	Artikeldescription Product description			Einheit Unit	Menge Quantity	Preis Price	PE Unit	Netto Discount	Netto Total		Brutto Total								
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5	PBF 2352;5 POSITIV-FERTIGBREIZE Art.klass.code 32041900			KSL	20	100.0	6.92	LT										692.00	
6	CR 06;.5 COLOR KREUZESTRAT BRAUN Art.klass.code 64139000				12	12.0	10.88	ST										130.56	
7	CL 9;25 CRYSTALLIT BEIDSEITIG Art.klass.code 32081010			K2SL	20	500.0	6.16	LT										3080.00	
8	CL 0;25 CRYSTALLIT BEIT			K2SL	20	500.0	6.16	LT										3080.00	
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Zahlungsbedingungen Payment conditions				Betrag Amount								Fällig Due date							

Erklärung der Verkaufs- und Lieferbedingungen sowie Kennzeichnung siehe Rückseite

Zweihorn GmbH
Dörmelstraße 102
64781 Kallau
Kontakt: 06071 77343
Telefax: 06071 77344
Telegraph: 06071 77345

Christophel & Söhne
Postfach 100
Hann. Postweg

Telefon: 021 03 77800
Telefax: 021 03 77343
Telegraph: 021 03 77345

BANKEN
Commerzbank AG, Köln, Konto 6 562 003
(BLZ 330 00 000)

EPO - DG 1
12.02.2007

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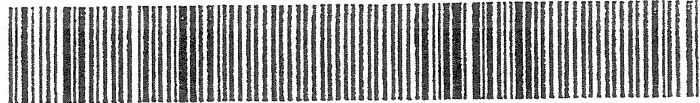
D4

EPO - DG 1

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12.02.2007



102

NEUAUSDRUCK

FERTIGUNGSAUFTRAG

SEITE: 0001

PRODUKT-NR./PRODUKT-BENENNUNG 0150002 OKF 2004		REZEPT-VERSION P004		DRUCK-DATUM 25/07/01		CHARGEN-NR. 57928		LIEFER-TERMIN 3/08/01		AUFTRAGS-NR. 57928	
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START KOSTELLE 38801		Buchungen i.D. 30.1. u. 01.02.04									
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M202C ✓	SYNCOCHWAZ SG-SH	0,115		✓		01030341					
M243H ✓	SYNCOCHARLACH 3R-SH	0,109		✓		00030438					
A0027 ✓	SPEZIALNIGROSIN WLAH **23	0,285		✓		01030436					
A0435 ✓	SICOVIT AMARANTE 85 E 123	0,050		✓		01030463					
Z9434 ✓	POTTASCHE	2,480		✓	XH	01070562					
M2224 ✓	UMERA E 2885 W	17,112		✓		01010405					
M2225 ✓	SICOMIX-GRUEN 81-0010 **E8	0,620		✓		99060356					
L1742 ✓	DANN ZUGEBEN VOR ZUGABE ERWARMEN AUF 80 GRAD WASSER STAEDTISCH	247,030		✓		11					
	20 MINUTEN RUEHREN ABKUEHLEN AUF 30,0 GRAD CELSIUS DANN ZUGEBEN										
24494 ✓	SALMIAUGELST 0,91	15,500		✓	C						
Z9756 ✓	PREVENTOL CMK-NA SCHUPPEN	0,310		✓	C	01050550					
R329C ✓	MOVILITH DC, 56%	24,800		✓		01050306					
L1091 ✓	BUTYLGLYKOL	1,240		✓	XH	11					
	15 MINUTEN RUEHREN			✓							
	PRUEFFPLAN STEHE PRUEFFARTE										

$$\frac{\text{Dye}}{\text{Pigment}} = \frac{0,909 \text{ kg}}{17,732 \text{ kg}} = 5,12 \%$$

32.02.01
Steinhof